

## Low PIM N Male to N Male Weatherproof Cable TCOM-400 Coax with Times Microwave Components



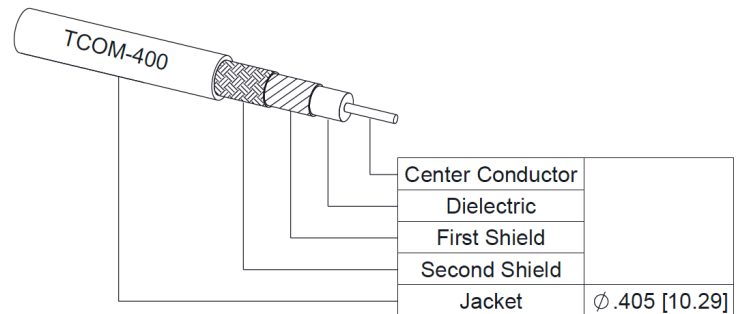
### FMCA100109/WP

#### Configuration

- Connector 1: N Male
- Connector 2: N Male
- Cable Type: TCOM-400
- Coax Flex Type: Flexible

#### Features

- Max Frequency 6 GHz
- Low PIM: -155 dBc Max
- Shielding Effectivity > 100 dB
- 85% Phase Velocity
- Double Shielded
- PE Jacket
- 500 Mating Cycles
- Silicone Connector Boot
- IP68 Rated



#### Applications

- General Purpose
- Laboratory Use
- Low PIM Applications

#### Description

The Fairview Microwave FMCA100109/WP is a weatherproof low loss cable assembly that comes with type N male connection with weatherproof boot on one end and type N male with weatherproof boot on the other. Fairview Microwave's RF coaxial cable assembly products are designed for typical use, production, laboratory test and measurement, defense/military, aerial antenna towers, etc. The low loss cable has a 50 Ohm impedance and is specifically ready for quicker shipment than most in the industry can provide.

This weatherproof low loss RF cable assembly operates at a maximum frequency of 6 GHz. Our RF cable assembly has a PE jacket with 0.405 inches diameter. The type N male to type N male cable assembly FMCA100109/WP is built with TCOM-400 coax, which has a flexible design. This RF cable assembly with 0.5 inches diameter has copper clad aluminum as cable's inner conducting material and PE (F) dielectric type. The weatherproof boot low loss cable is reusable and can withstand elements including extreme temperature. Additional dimensions, specifications, and CAD drawings for this FMCA100109/WP low loss RF cable are available on our downloadable PDF datasheet.

Fairview Microwave stocks a wide selection of weatherproof low loss cable assemblies that ship the same business day as ordered from our warehouse. Make your online purchase right now to take advantage of our same-day shipping. For further information on similar products, our expert technical support and knowledgeable sales team can help you get the ideal type N male to type N female cable assembly as per your requirements.

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		6	GHz
VSWR			1.4:1	
Velocity of Propagation		85		%
RF Shielding	100			dB
Group Delay		1.2 [3.94]		ns/ft [ns/m]

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#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Passive Intermodulation			-155	dBc
IM3 (2x43dBm Tones) at 850 MHz or 1900 MHz				
Capacitance		23.9 [78.41]		pF/ft [pF/m]
Inductance		0.06 [0.2]		uH/ft [uH/m]
DC Resistance Inner Conductor		1.39 [4.56]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		1.47 [4.82]		Ohms/1000ft [Ohms/Km]
Dielectric Withstanding Voltage (DC)			2,500	Vdc
Jacket Spark			8,000	Vrms
Input Power (Peak)			16	KWatts

#### Specifications by Frequency

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	250	500	1000	2500	6000	MHz	
FMCA100109/WP	Custom Lengths Available	Insertion Loss (Typ.)	0.021	0.03	0.044	0.072	0.117	dB/ft	
			0.07	0.1	0.15	0.24	0.39	dB/m	
FMCA100109/WP-12	12 Inch	Insertion Loss (Typ.)	0.23	0.23	0.25	0.28	0.32	dB	1.28
FMCA100109/WP-24	24 Inch	Insertion Loss (Typ.)	0.25	0.26	0.29	0.35	0.44	dB	1.36
FMCA100109/WP-36	36 Inch	Insertion Loss (Typ.)	0.27	0.29	0.34	0.42	0.56	dB	1.44
FMCA100109/WP-48	48 Inch	Insertion Loss (Typ.)	0.29	0.32	0.38	0.49	0.67	dB	1.52
FMCA100109/WP-60	60 Inch	Insertion Loss (Typ.)	0.31	0.35	0.42	0.56	0.79	dB	1.6

The insertion loss data for the base model does not include loss due to the connectors. Each length includes insertion loss due to the connectors.

Loss due to Connector 1:	0.1 dB
Loss due to Connector 2:	0.1 dB
Base Weight:	1.28 pounds
Additional Weight per Inch:	0.00666 pounds

#### Mechanical Specifications

##### Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	1.28 lbs [580.6 g]

##### Cable

Cable Type	TCOM-400
Impedance	50 Ohms
Inner Conductor Type	Stranded
Inner Conductor Material and Plating	Copper Clad Aluminum
Dielectric Type	PE (F)
Number of Shields	2
Shield Layer 1	Silver Plated Copper Braid
Shield Layer 2	Tinned Copper Braid

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### FMCA100109/WP

Jacket Material	PE
Jacket Diameter	0.405 in [10.29 mm]
One Time Minimum Bend Radius	1 in [25.4 mm]
Repeated Minimum Bend Radius	4 in [101.6 mm]
Bending Moment	0.5 lbs-ft [0.68 N-m]
Flat Plate Crush	40 lbs/in [0.71 Kg/mm]
Tensile Strength	160 lbs [72.57 Kg]

### Connectors

Description	Connector 1	Connector 2
Type	N Male	N Male
Option	Weatherproof Boot	Weatherproof Boot
Specification	IEC-61169-16	IEC-61169-16
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Mating Cycles	500	500
Contact Material and Plating	Brass, Silver	Brass, Silver
Contact Plating Specification	200 µin minimum	200 µin minimum
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Body Plating Specification	80 µin minimum	80 µin minimum
Torque	44.25 in-lbs 5 Nm	44.25 in-lbs 5 Nm
Boot Material	Silicone	Silicone

### Environmental Specifications

Operating Range Temperature	-40 to +85 deg C
Ingress Protection (IP) Rating	IP68

### Compliance Certifications (see [product page](#) for current document)

### Plotted and Other Data

Notes:  
Values at 25°C, sea level.



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### FMCA100109/WP

#### Typical Performance Data

#### How to Order

Part Number Configuration: **FMCA100109/WP - xx uu**

Unit of Measure:  
cm = Centimeters  
<blank> = Inches

Length

Base Number

Example: FMCA100109/WP-12 = 12 inches long cable  
FMCA100109/WP-100cm = 100 cm long cable

Low PIM N Male to N Male Weatherproof Cable TCOM-400 Coax with Times Microwave Components from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Low PIM N Male to N Male Weatherproof Cable TCOM-400 Coax with Times Microwave Components FMCA100109/WP](#)

URL: <https://www.fairviewmicrowave.com/low-pim-n-male-to-n-male-weatherproof-cable-tcom-400-coax-with-times-microwave-components-fmca100109-wp-p.aspx>

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FMCA100109/WP CAD Drawing

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